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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,877	02/19/2004	Peter Kochersperger	1857.2140000	1990

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STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

DUONG, KHANH B

ART UNIT	PAPER NUMBER
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2822

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09/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/780,877	Applicant(s) KOCHERSPERGER, PETER	
	Examiner KHANH B. DUONG	Art Unit 2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-23 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-14 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/8/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In response to the Notice of Panel Decision from Pre-Appeal Brief Review dated June 30, 2008, prosecution of the application is hereby reopened.

Response to Amendment

This office action is in response to the amendment filed August 20, 2007.

Accordingly, claim 12 was amended.

Claims 1-11 were previously canceled.

Claims 15-22 remain withdrawn from further consideration as being directed to a non-elected invention.

Currently, claims 12-14 and 23 remain active.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on July 8, 2008 has considered by the examiner.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12-14 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 12, line 5, “without substantially expanding the wafer” is indefinite in scope and meaning as to how much of a measurable dimension of expansion on the wafer is considered as “without substantially expanding”.

*** Other claims are rejected as depending on the rejected base claim(s).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-14 and 23 are rejected, as best understood, under 35 U.S.C. 102(b) as being anticipated by Getchel et al. (U.S. Patent No. 6,375,176).

Re claim 12, Getchel et al. (“Getchel”) expressly discloses in FIGs. 9A and 11A wafer holder comprising: a wafer chuck 533 (of cast aluminum) configured to receive a wafer (of silicon); and an expander 580 coupled to the wafer chuck 533 and configured to expand the wafer chuck 533 (by heating) “without substantially expanding” the wafer, such that an inherent initial stress (due to differential thermal expansion between the wafer chuck and the wafer) at an interface between the wafer and the wafer chuck 533 is created. Note: Since Getchel discloses that top surface of layer 533 can serve to directly support a wafer, layer 533 can be considered as a “wafer chuck” [see description regarding FIG. 9A].

Furthermore, the recitation “[a] lithography system configured to reduce wafer slipping” has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88USPQ 478 (CCPA 1951).

Re claim 13, Getchel expressly discloses in the same figures the expander 580 comprises an annular tube coupled to said wafer chuck 533.

Re claim 14, Getchel expressly discloses in the same figures said annular tube 580 is coupled to an outer edge of said wafer chuck 533.

Re claim 23, Getchel discloses said expander 580 is configured to expand (by heating) said wafer chuck 533 in an inherently uniform manner [see col. 15, lines 13-18 and col. 16, lines 10-12].

Response to Arguments

Applicant's arguments filed February 4, 2008 with respect to the rejections under Getchel have been fully considered but they are not persuasive.

Applicant argues that Getchel does not disclose “an expander coupled to the wafer chuck and configured to expand the wafer chuck without substantially expanding the wafer, such that an initial stress at an interface between the wafer and the wafer chuck is created”. In response, the Examiner respectfully disagrees because, upon a thermal expansion as a result of heating, the wafer chuck 533 of cast aluminum and wafer of silicon would expand at different rates due to their different thermal expansion coefficients. Thus, the differential thermal expansion between the wafer chuck and the wafer would cause an initial stress at an interface between the wafer and the wafer chuck. See also discussion of the new Novak reference below.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Novak (U.S. 6,653,639) teaches stresses between wafer chuck and wafer may be caused by mechanical distortion of the wafer or chuck, or by differential thermal expansion or contraction between the wafer and the chuck [see col. 2, lines 1-9].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH B. DUONG whose telephone number is (571) 272-1836. The examiner can normally be reached on Monday to Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith, can be reached on (571) 272-2429. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Zandra V. Smith/
Supervisory Patent Examiner, Art Unit
2822

KBD